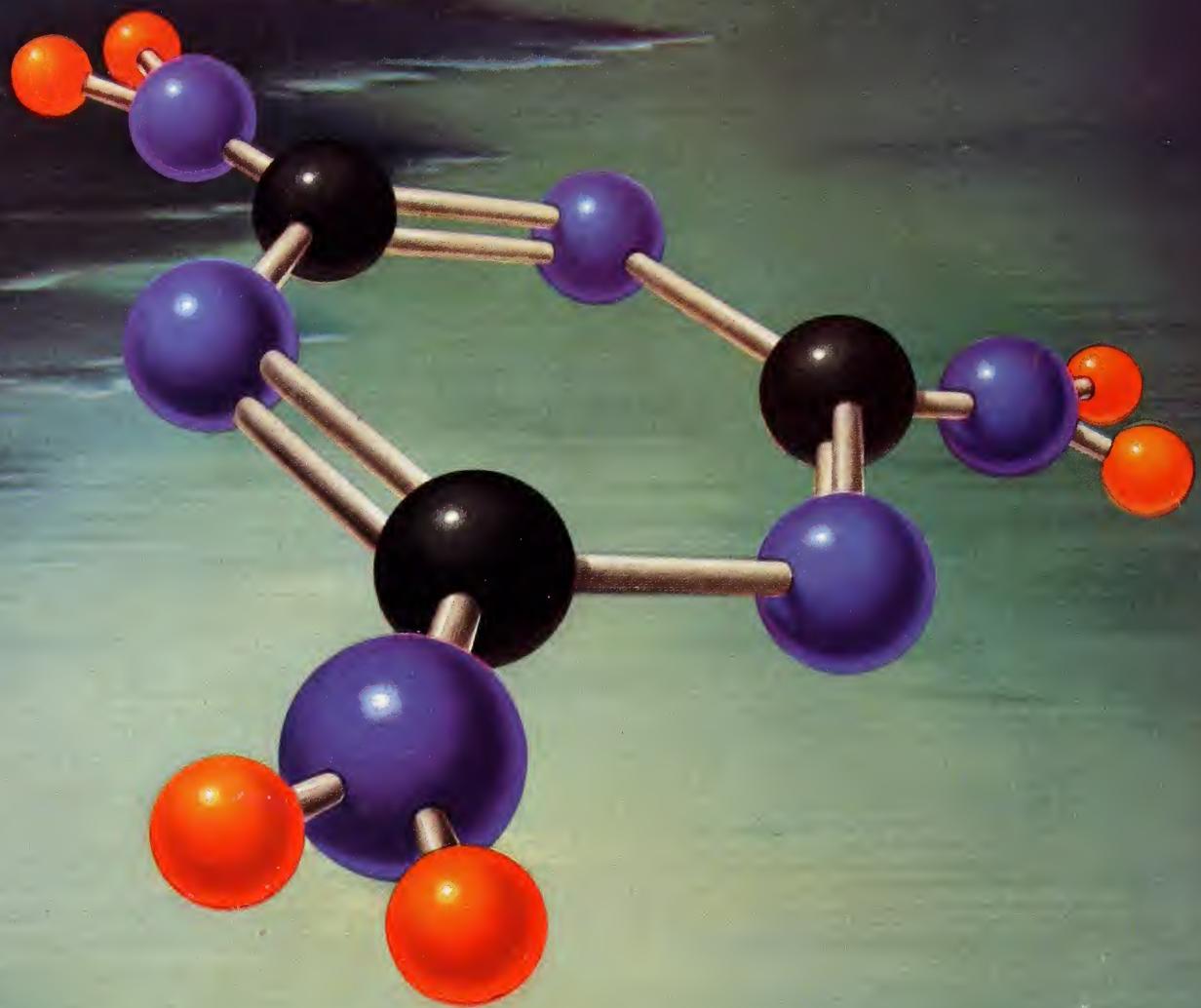




1631
22



MELAMINE

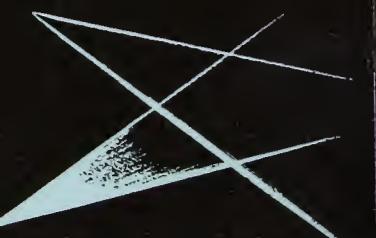


American
Cyanamid Company

30 ROCKEFELLER PLAZA, NEW YORK, N. Y.

INTRODUCING . . .

... a miracle maker





MELAMINE...An amazing chemical which has already effected remarkable improvements in many manufacturing industries such as ➤ ➤

When the attack came at Pearl Harbor America was cut off from supplies of raw materials for the manufacture of burlap bags, and in 1942 a shortage developed. Farmers in various parts of the country were asked to cooperate by using paper bags for shipping their potatoes and other produce to market. Naturally they were skeptical. It seemed obvious that paper bags would last about as long as it took them to get wet.

There proved to be, however, something surprisingly different about the paper bags which were supplied for this purpose. Left out in the rain or soaked through with moisture from the vegetables themselves, they not only refused to disintegrate but stayed strong and tough.

Here was something in the nature of a miracle—paper that stayed strong even when soaking wet. It had meaning not only for farmers and scores of industries that use paper but for everyone who ever carried a paper bag full of groceries home in the rain. It was, in fact, conclusive evidence that papermaking had reached a revolutionary new stage... and that paper could be used for many new and important purposes.

Actually, this "miracle" is only one of a series of "miracles" which have been performed or are being performed on the products of many industries through the use of melamine, a truly remarkable chemical developed and produced on a commercial scale by American Cyanamid Company.

Used in various compounds, this remarkable chemical has brought about the production of unbelievably hard and durable enamels...made possible very high altitude flying for bombers and fighting planes through its use in plastic parts...provided the first satisfactory solution to the age-old problem of wool shrinkage...made feasible the large scale production of demineralized water by simple methods...improved the quality of leathers. And yet chemists say that the potentialities of melamine have only begun to be touched!

Cyanamid's production of melamine, which got under way just before our entry into the war and now amounts to hundreds of carloads annually, came at an opportune time



PLASTICS

TEXTILES

PAPER

LEATHER

CHEMICALS

ENAMELS

and provides America with its major source of supply for this important material. For melamine in various compounds has helped to increase the quality and efficiency of many types of our military equipment and is responsible in many respects for their margin of superiority.

What is Melamine?

The history of melamine is as romantic as its use is spectacular. First synthesized in the laboratory by Justus von Liebig in 1834, it was laid aside as too difficult and costly to make and apparently of no practical value. It remained quite forgotten on chemistry's shelf of "curiosities" for more than a hundred years until Cyanamid research undertook to uncover its amazing possibilities.

Its "rediscovery" and development by Cyanamid was both natural and logical. Melamine is a nitrogen compound, and Cyanamid has long been known for its pioneering work in this field. The company was founded in 1907 for the purpose of developing in America a process of taking nitrogen from the air and "fixing" it in a form suitable for plant food. Cyanamid is the first and only manufacturer in the western hemisphere of calcium cyanamide, from which the company takes its name. At first, calcium cyanamide was used solely as a fertilizer but under the "magic wand" of Cyanamid research, it has proven to be a virtually inexhaustible source of chemical progress. From it, the company has developed a wide variety of chemicals which are helping to write industrial history. Of these, melamine is among the newest, and most interesting.

Many years ago Cyanamid pioneered in the development and production of synthetic resins made from urea, another nitrogen compound. These resins, first introduced in the form of colorful plastics, were later adapted for use in such diverse products as surface

(1945)

MELAMINE

CALCIUM CYANAMIDE

LIME

COKE

NITROGEN

STORAGE BATTERIES · PHOTOGRAPHY
ELECTRONICS · LABORATORIES
CHEMICAL PROCESSES
ENGINE COOLANTS

ION EXCHANGE

MELAMINE RESINS

LEATHER

TANAK

PAREZ

SHOES · GLOVES
POCKETBOOKS · BELTS
JACKETS · UPHOLSTERY
LUGGAGE
FURNITURE

MAPS · BAGS · TOWELS
FROZEN FOOD CONTAINERS
BARREL LINERS · BLUEPRINTS
WRAPPING PAPER · CARTONS

PAPER

PLASTICS

AIRCRAFT IGNITION
TABLE TOPS · TABLEWARE
LIGHTING REFLECTORS
BUTTONS · PACKAGING

WOOL SHRINKAGE

CONTROL IN: BLANKETS
KNIT GOODS · SHIRTINGS
DRESS GOODS
SPORTSWEAR
MEN'S WEAR

LANASET

MELMAC

AEROTEX

PERMEL

TEXTILES

WATER AND SPOT
REPELLENT FINISHES FOR:
SPORTSWEAR · DRESS GOODS
INFANTS' WEAR
MEN'S WEAR

AIRPLANE PARTS · STOVES
REFRIGERATORS · AUTOMOBILES
HOSPITAL EQUIPMENT · WASHING
MACHINES

ENAMELS

MELMAC

ION

IONAC

EXCHANGE

CREASEPROOFING, STABILIZING
AND SPECIAL FINISHES FOR:
DRESS GOODS · MEN'S WEAR
NETTING · SHIRTS · LACE
GLAZED CHINTZ

WOOL SHRINKAGE

CONTROL IN: BLANKETS

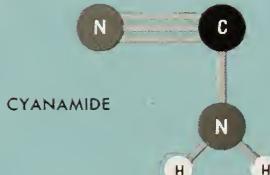
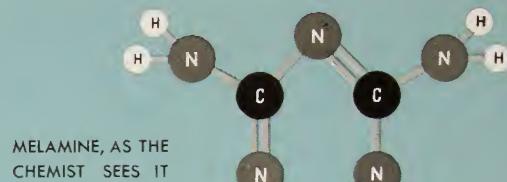
KNIT GOODS · SHIRTINGS

DRESS GOODS

SPORTSWEAR

MEN'S WEAR

In going from Cyanamide to Melamine, the molecule grows both in size and complexity.



coatings, adhesives and textiles. This experience was one of the factors that helped to make the rapid evaluation and utilization of melamine possible. For it was while exploring the possibilities of melamine along similar lines that its remarkable properties began to be evident. Test after test indicated its superiority for such purposes...and experiments in new directions revealed that melamine offered tremendous advantages for other purposes as well. It soon became evident to all concerned in Cyanamid's laboratories that here was *one of the truly great discoveries of this chemical age!*

From Test Tube to Carload

To produce melamine on a commercial scale was the next problem. Analysis indicated that it is a triple molecule or trimer of cyanamide. Free cyanamide could be readily obtained from calcium cyanamide and was the most obvious starting point for its manufacture. As the sole source of cyanamide in the Americas, Cyanamid set out to develop a process that would be both technically and economically feasible for its production.

This task was difficult due to the fact that in going from cyanamide to melamine the molecule grows both in size and complexity. However, as the result of exploratory work started a dozen years ago, followed a little later by a major research investigation, this was finally accomplished with the development of a process involving the use of complicated equipment operating under high pressure. By 1939 the difficulties were ironed out in pilot plant trials...and the manufacture of melamine, chemical key to progress in many industries, was translated from test tube to carload quantities. Production was also begun on several of its important compounds.

Some of the things this amazing chemical has contributed to the war effort, as the result of Cyanamid's research, and some indications of its peacetime possibilities are outlined in the following pages.



*M*elmac Plastics to the Rescue

PLASTICS

Put yourself in the cockpit of a fighter plane. You are climbing into the rarefied atmosphere of top combat altitudes. Suddenly your motor coughs, splutters—and goes dead. In the too thin air, electric arcs jumping from terminal to terminal on the distributor have burned the insulating material and caused an ignition failure.

If such a thing happens when you are in sight of a sharp-eyed enemy fighter, you are just a sitting duck. Of what value are two thousand horse power motors and all the super fuels in the world if just one vital part of an ignition system fails when it is most needed! On such seemingly unimportant details depends the outcome of thousands of air battles.

You can imagine, then, with what enthusiasm aircraft engineers welcomed the contribution MELMAC* plastics, made with melamine, had to offer. They were found to be the *only* plastics possessing the stability, heat resistance, dielectric strength and high arc resistance necessary to assure perfect functioning of aeroplane ignition systems in rarefied atmospheres as well as in desert heat and arctic cold. For the first time, insulating parts continued to perform in spite of repeated flashovers and short circuits.

As a result of this use of MELMAC plastics, which came at a critical time when our country was threatened, the ceiling for our bombers and fighters was lifted and they were given a wider margin of safety and maneuverability. The performances of such planes as the Thunderbolt, the Lightning, Hellcat, Liberator, Mustang and last but not least, the Superfortress, are impressive testimonials to the value of these plastics, which function efficiently in temperatures ranging from 40°F. below zero to 400°F. above!

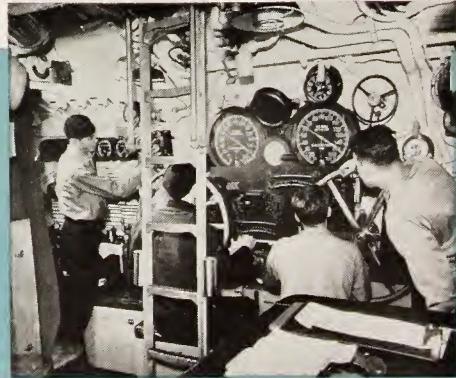
But MELMAC plastics are by no means confined to the Air Forces in their timely contributions to war efficiency. The United States Navy found the remarkable properties of



Impact resistant food containers, molded of MELMAC used in hospitals and homes.



Military experience led to the use of MELMAC plastics in tractor ignition parts.



Melamine resin with glass fibre for fire, shock and arc-resistant control panels.

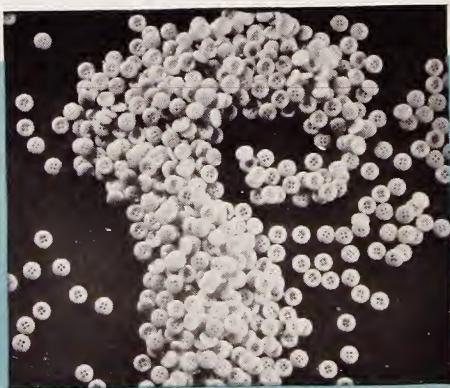
these materials—their stability and resistance to burning and electric arcs—of real value, and straight-way put them to use in the electrical system which is the heart of a modern naval vessel. Heavy duty circuit breakers capable of withstanding the shock of big guns and having exceptional fire and arc resistance are now made of MELMAC plastics. Control panel boards composed of MELMAC resins and glass cloth are also used to insure the functioning of the big ships' power plants during the shock of combat.

Less spectacular but no less typical of the versatility of MELMAC plastics is their use by the armed forces in the form of buttons and tableware. Limited shipping space brought about a shortage of vegetable ivory formerly imported and used for shirt buttons. MELMAC plastics buttons were tried and found not only to be cheaper but more satisfactory because of their ability to stand up under long wear, rough usage and repeated launderings. Patrol bombers, PT boats and small naval craft were in need of sturdy, lightweight tableware. Here again MELMAC plastics, because of their hardness and resistance to boiling water, proved superior.

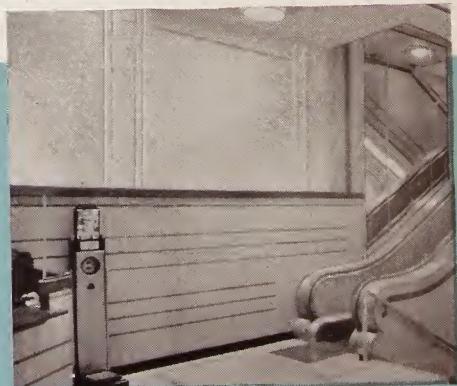
When MELMAC plastics receive their honorable discharge from the services, they will resume their role of improving products used in civilian life. You will see them in restaurants and in homes as delicately colored tabletops and serving trays, hard and resistant to heat and chemicals. As adhesives and surfaces, they will strengthen and beautify wood veneers. In the lightweight, non-shatterable lighting reflector overhead and in those little hidden switches and circuit breakers installed in your home, they will assure greater safety and efficiency. MELMAC plastics will also provide improved insulation in your postwar automobile and in trucks, tractors, stationary motors and electrical equipment throughout industry and transportation—wherever heat, frost, dust, moisture and humid air are threats to operating efficiency.



Light weight, sturdy MELMAC molded tableware is being used on ships and planes.



Melamine plastic buttons withstand laundering and retain their brilliant lustre.



Laminates produced with melamine resins combine exceptional beauty and durability.



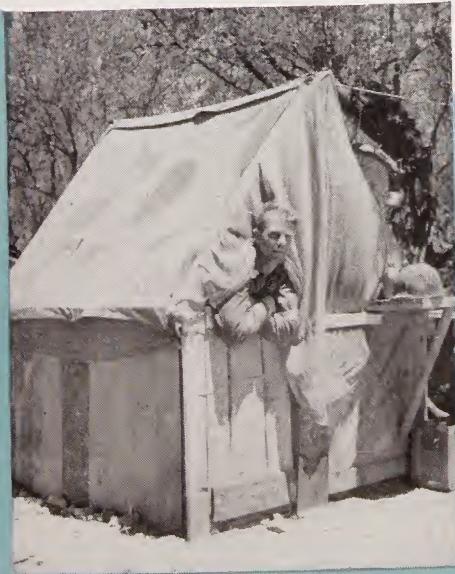
Melamine Solves Textile Problems

Throughout the centuries, wool has been one of mankind's most treasured gifts, and because it offers many advantages, people have accepted, with resignation, the fact that it shrinks. No doubt you have come to expect woolen socks to shrink so badly after a few trips to the laundry that you can no longer wear them comfortably—and sometimes cannot even get them on your feet. But also, no doubt, you have said to yourself, "Why isn't something done about this?"

At last something has been done—with melamine. Researchers in Cyanamid's laboratories, investigating the possibilities of melamine for use in textiles, discovered that one of the compounds of this amazing chemical had the power of stabilizing wool fibres. They had already reached an advanced stage in the development of a wool shrinkage control process when the U. S. Army Quartermaster Corps asked for help in preventing the shrinkage of wool linings for sleeping bags.

Applied to wool, Cyanamid's melamine product, which it distributes under the trademark LANASET* has proven to be the best practical solution to the wool shrinkage problem. The process** by which it is applied is another development of Cyanamid research. Chlorine and other harsh chemical treatments have been used heretofore, but while they control shrinkage they also degrade the fibres and cause a loss of life and elasticity, feel and wearing qualities. LANASET not only stabilizes the fibres and assures better shrinkage control but preserves all the other desirable properties of wool. Moreover, it prevents such undesirable tendencies as "felting", or the inclination of wool to mat up into a felt-like material after repeated washings.

Today, new as it is, LANASET is gaining rapid recognition throughout the textile industry because of the truly remarkable results obtained by its use. A wool garment or blanket bearing the label "Stabilized with LANASET Resin" requires no accompanying caution "Dry clean—don't launder." In the future, it will be possible to send wool sportswear, sweaters, socks, dresses, underwear, gloves and many other wool articles to the laundry repeatedly without fear of harmful shrinkage. Here is one of the longest forward steps taken for wool in all its thousands of years of history. It means the broader use of wool in many types of products and new comfort and economy for people who buy them.



Melamine resins have a big future in textile finishing. Treated Government nettings (left) have weathered extreme climatic conditions. From Permel, rayons and cottons get durable spot and water resistance (above) while Aerotex M-3 provides crease and shrinkproofing (right).



*Trademark

**U. S. Patent 2,329,622—Re 22566

But melamine compounds have other important textile applications, too. Perhaps you know how mosquito netting, which heretofore has always been starch-finished, became limp after the first good wetting and lost much of its usefulness. In the Far East and South Pacific combat areas there has been a tremendous demand for insect protective netting, and it is easy to see what would happen to ordinary mosquito netting when subjected to the adverse conditions of heat and humidity existing there. To solve this problem, millions of yards of cotton and nylon netting have been given longer life and stability to shrinking through the use of AEROTEX M-3* resin. This melamine resin, developed by Cyanamid, will give us many textiles with improved qualities to add to their enjoyment and use in the days of peace.

Another important application for AEROTEX M-3 in the textile field is for creaseproofing and shrinkage control, particularly of synthetic fibers such as rayon and acetate. Spun rayon makes up into beautiful shirting and dress goods materials but because of the nature of the fiber shrinks and wrinkles badly. When treated with AEROTEX M-3, however, both of these disadvantages are overcome.

Similarly jersey knit goods which can be made up into such attractive dresses need no longer be avoided as an item in Milady's wardrobe because of their tendency to bag. In addition to being creaseproofed and having the shrinkage control, the knit construction is stabilized so that it will not sag and pull out of shape.

Much of the men's light weight suiting material for hot weather wear in the future will be treated in this same way. We can look forward to suits which will be light in weight and at the same time maintain their neatness of appearance even during the muggiest of the dog days.

In the past, water repellents have been either wax impregnations which come out with the first dry cleaning, or impermeable films which hide the appearance of the cloth and entirely change its character. But now, thanks to PERMEL** resin, another compound of melamine developed by Cyanamid, it is possible to produce a durable water repellent finish on cotton or rayon which in no way changes the other characteristics of the material yet is practically unaffected by laundering or dry cleaning***. Moreover, in the same operation, these materials can be rendered highly crease resistant—and even spot resistant. Stains that are soluble in water can be wiped off quickly and easily. Thus, in addition to promising great usefulness in raincoats, sportswear and children's garments, PERMEL will bring new qualities to many other types of clothing—from women's evening dresses to men's suits.



Another melamine resin, Lanaset, is used for stabilizing wool. Jersey dresses (left) may now be washed and retain their shape. Shrinkage is minimized, giving new serviceability to children's garments (right) while woolen hose (above) can be washed without losing size or softness.



*P*aper Takes on "Wet Strength"

You have already learned how a shortage of burlap was met with the use of paper bags that stayed strong even when they were soaked through.

This is only part of the story. One of the most interesting uses for PAREZ* 607 melamine resin that makes such wet strength possible, is in maps for the armed services. Maps printed on paper containing this unique resin have been termed practically "indestructible." They can be carried safely in pockets while wading ashore from a landing boat; they can be spread out and used in the rain without fear of damage. Highly resistant to tropical humidity, gasoline, oil, grease, as well as repeated foldings, this paper is being used in huge quantities. Not only maps but also blueprints, instruction booklets, lens wiping tissues and a host of other essential items made with PAREZ treated paper are now filling vital wartime needs. These articles remain strong even when saturated with water.

The "secret" of PAREZ 607 lies in its unique ability to attach itself to the paper pulp and be retained in the fibre when it is formed into sheets. The preparation ** of the resin and process of application, as developed in the Cyanamid laboratory involve no change in normal paper making procedure and no additions to regular paper mill equipment. The resin binds the fibres and causes them to resist separation when wet. Thus they stand up when the fibres of ordinary paper would disintegrate. Furthermore, in contrast to the fleeting wet strength effect previously attained with other materials, this effect is durable even on prolonged storage under high temperature and humidity conditions.

Tests of paper treated with PAREZ 607 also reveal important improvements in dry strength and scuff resistance, along with a substantial increase in folding endurance. Compared with ordinary papers, these differences are astonishingly pronounced. In many instances it is feasible to make lightweight papers do the work of heavier grades by incorporating only small amounts of this melamine compound.

It is easy to conceive of the many uses PAREZ 607 treated paper will have in civilian life after the war. You will see them in multi-wall bags which can be stored out of doors without damage to the contents. In bags and wrappers used by the butcher and the grocer, they will assure protection against breakage for the housewife on the way home. In the packaging of frozen foods, too, they offer interesting possibilities for protection of quality and for safety in handling. They will be employed as liners to protect the contents of crates and barrels. You will see them in improved towels, napkins, handkerchiefs, wrappers, cartons, boxes and wallpapers. They will be used to make more durable photographs, too. PAREZ 607 is a development that makes you think of paper almost as a new material!



Blueprints strengthened with PAREZ 607 will map the buildings of "tomorrow."



Wet-strength paperboard makes cartons that frost and moisture do not harm.



Maps of melamine-treated papers withstand soaking and roughness of Army use.



*L*eather Takes a Forward Step

Have you ever had the appearance of a new pair of white shoes spoiled by a hard scuff or tear that exposes the leather underneath the white finish?

If so, you will be interested in learning that white leather can now be made which is *white all the way through*, not just on the surface. This means that white shoes will stand up better under rough treatment and keep their appearance longer—even if they are scuffed or torn.

Leather was the first material used by man for clothing, and the tanning of leather is an industry that goes back to the dawn of recorded history. Yet the methods in use today are essentially those used in early times, although many refinements and improvements have been added. Until recently, most leathers have been tanned with vegetable extracts or chrome salts, each of which has its own advantages and limitations.

For years, tanners have dreamed of a material that would enable them to produce a white leather that is white all the way through. Chrome tanned white leathers tend to have a bluish color. By bleaching and treating with pigments, the surface can be whitened but the inside of the leather remains dark, which makes an unsightly appearance when the surface is scuffed sufficiently to expose a lower layer.

Here again, as in so many other industries, Melamine provides the answer. Used in a compound distributed by Cyanamid under the trademark TANAK* MR, it has astonishing penetrating and curing powers and makes possible, for the first time, the production** of perfectly white leathers that are not only white all the way through but will not darken with age or exposure to sunlight.

But TANAK MR does more, too. Because it combines the best features of chrome and vegetable tanning, it produces leathers that are highly resistant to heat and oxidation while possessing improved fullness, texture and wearing qualities. And its use is not limited to white leathers—it imparts new fullness and other advantages to many different types of leather and may be used alone or, when desired, in conjunction with other tanning materials.

Here is another triumph for melamine. It opens the way for the improvement of many other leather articles besides shoes—luggage, handbags, coats and jackets, upholstery, gloves, belts and a long list of additional items in which leather is traditional and preferred.

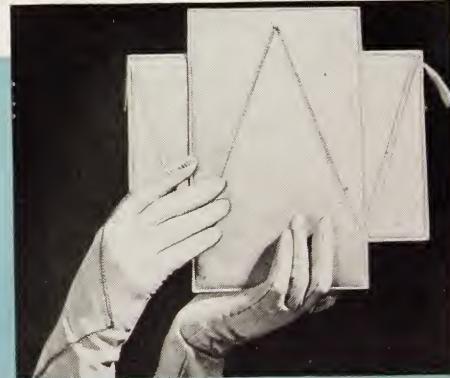
TANAK MR, developed and distributed by Cyanamid, is a synthetic product which, after the war, will always be available from easily obtained raw materials. Its expanding use will help to conserve the world's ever dwindling supply of natural tannins, and will render this country less dependent on imported materials.



Better leathers for all types of articles will be available—thanks to melamine.



Melamine resin for tanning produces fine texture leathers that will wear longer.



White leather that is "white all the way through" is now made with TANAK MR.



“Water, Water Everywhere”



The story is told of a sailing ship many years ago adrift in a calm sea. As the days went by the crew ran out of water. Finally, a sail was sighted and when they were within hailing distance, a call was made for help. The answer came in the still air, "Drop your bucket where you are!" Incredulously, the sailors dipped a bucket in the sea—to find that it was not salt but fresh water. They had drifted into the broad mouth of the Amazon which is so wide that both shores were out of sight.

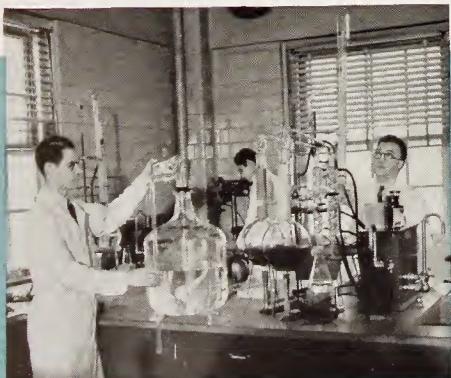
Modern industry is seldom so fortunate. Time after time it finds itself surrounded by water into which it cannot "dip its bucket" because practically none of it is fit to use for ordinary industrial purposes. For the water required for scores of manufacturing purposes must be even more nearly chemically pure than drinking water.

IONAC* resins, melamine in another form, used in a new device sold under the trademark FILT-R-STIL*, now provide a means of removing the mineral content of water in such a way as to make demineralized water as readily available as tap water. This process, developed by Cyanamid, is so economical that it makes possible the use of purified water in many places where it is desirable but where the cost was previously considered prohibitive.

Centuries ago, man learned to remove the mineral content of water by evaporation and subsequent condensation. Such distillation is common practice for laboratories and other consumers requiring pure water on a moderate scale. But the equipment needed and the cost of operation are prohibitive for the purification of water in the huge quantities demanded for many industrial uses. "Softening" by chemical treatment is only a partial answer, since the net effect is to substitute one type of mineral impurity for another which forms more soluble and somewhat less harmful compounds.

The development of a suitable melamine compound and a simple process for the purification of water has been greatly stimulated by the demands of war. The armed forces needed a means of treating brackish desert water and required equipment of minimum weight and bulk for ready transport. They wanted small portable units to provide demineralized water for storage batteries used in communication equipment. They wanted equipment to set up at any airport for speedy production of purified water for aeroplane engine coolants and superchargers. IONAC resins and FILT-R-STIL equipment help to satisfy these needs.

Thus a way has been opened for the use of demineralized water in unlimited quantities. Cost is no longer an obstacle—whether a pint is needed for an auto battery or a drugstore prescription, or whether millions of gallons are required for industrial use. And the same chemical action (known as ion exchange) serves not only to purify sugar, formaldehyde and glycol, but also in other applications to recover valuable by-products, such as tartaric acid from wine and metal from industrial wastes.



Melamine is used in producing IONAC Ion-Exchange resins for water demineralization and various chemical processes.



Water, demineralized with IONAC resins, can be used in most places where distilled water was formerly required.



Millions of gallons of water can now be expediently and economically demineralized to meet industry's increasing needs.



Finishes of Amazing Resistance

ENAMELS

Because it has improved the utility, durability and beauty of many of the products which you or your family use in everyday living, Cyanamid's melamine has a direct, personal meaning for you. MELMAC* resins—resins made from melamine—were first incorporated into quality surface coatings as far back as 1939, and since that time have found rapidly expanding use.

Their characteristics have been time-proven in many household and industrial applications—and have been further demonstrated through their use in war applications. When hostilities cease and the manufacture of civilian goods is resumed, the use of such coatings will be more widespread than ever.

Take, for example, the enamel on the refrigerator in your kitchen. Before the advent of melamine, such coatings had already reached a high degree of perfection, thanks to the ingenuity of the paint manufacturer. But MELMAC resins brought an entirely new and higher standard of quality and durability. They made possible the production of enamels that surpassed anything yet achieved in hardness, resistance to impact, abrasion, scratching, and the destructive action of fruit acids, foods and greases. The refrigerator so finished will retain its pristine whiteness and glossy appearance through long years of service.

The finish on the various parts of the kitchen stove requires virtually the same characteristics as the refrigerator—plus resistance to high temperatures. MELMAC resins have provided all these features and in addition, a degree of resistance to impact and bending that could not be obtained with the porcelain type enamels previously used.

On washing machines, too, these resins provide an almost indestructible finish that withstands the effects of hot water, alkaline soaps, and the wear and tear of countless launderings. Indeed, finishes of this type will stay new looking long after the machine itself has outlived its usefulness.

Now that most of the cars you see on the road are growing old, it is becoming easier to



White baking enamels made of MELMAC resins stay bright under hospital usage.



After the war household appliances will be finished with melamine resin enamels.



Hard surface coatings made with melamine resins will stay "new looking" longer.

distinguish those to which MELMAC resins have given a finish of longer lasting beauty. For MELMAC resins not only provide greater resistance to sun, wind, rain, sleet and extremes of heat and cold—they retain their original gloss and color longer too.

Meanwhile, MELMAC resins are making unique contributions to war efficiency through finishes that will stand up and retain their color and protective qualities under grueling punishment, resisting not only hard usage but harsh chemical action, salt water, and the devastating effects of weather extremes. They perform equally well on G.I. Joe's helmet liner which must withstand repeated delousing, on hospital equipment which is scrubbed with strong disinfectants and washing powders, and on tank interiors which are splashed with grease and dirt. They meet such needs as coatings for gas-resistant clothing, heat-resistant searchlight reflectors, and all sorts of small equipment parts used by every soldier.

MELMAC resin finishes belong to the thermosetting class; that is, they are brought to their final toughness by heating. Here again melamine provides an outstanding advantage. It substantially reduces the baking time required. Thus it speeds up production schedules so vital in wartime, and in peacetime enables the manufacturer to give greater value to the consumer in a wide variety of products. This is real progress, yet it is but one of the ways in which melamine is having a profound influence.

The Far Horizon

Surprisingly diverse as are the uses for melamine compounds described here, they represent only a small beginning. During recent years, Cyanamid's research has, of course, been concentrated on problems directly concerned with the war effort. But even this has uncovered many uses which will surely find peacetime application. When the war is over, the opportunity will be presented for more thorough exploration of this amazing chemical from which we may expect new contributions to the comfort and pleasure of living.



Metal furniture takes on lasting beauty when melamine resin finishes are used.



Cyanamid's melamine resin makes more durable finishes for vehicles of all types.



In tank interiors, as elsewhere, melamine helps surface coatings combat hard wear.

Inquiries concerning the products described herewith should be addressed as follows:

AMERICAN CYANAMID
& CHEMICAL CORPORATION
30 Rockefeller Plaza, New York 20, N.Y.

TEXTILE RESIN DEPARTMENT
AMERICAN CYANAMID
COMPANY

Bound Brook, New Jersey

PLASTICS DIVISION
AMERICAN CYANAMID
COMPANY
30 Rockefeller Plaza, New York 20, N.Y.

MELAMINE—the chemical.

MELMAC resins for paint, varnish, lacquer, printing ink and related products.

PAREZ 607 and other resins for the treatment of paper.

TANAK MR leather tanning compound.

IONAC resins and

FILT-R-STIL equipment for ion exchange treatment of water and chemicals.

LANASET resin for shrinkage control of woolen textiles.

PERMEL resin for spot proofing and durable water repellency.

AEROTEX M-3 resin for textile creaseproofing and fiber stabilization.

MELMAC plastics for molding, adhesives, laminating and related applications.



AMERICAN CYANAMID COMPANY

